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RESOURCE CONSERVATION AND RECOVERY ACT SITE INSPECTION REPORT  
ADDENDUM INTERIM REMOVAL ACTION FOR UNEXPLODED ORDNANCE 8  
PYROTECHNICS AREA OUTSIDE TEST BURN PADS NSA CRANE IN  
11/1/2011  
TETRA TECH

# **Resource Conservation and Recovery Act**

## **Site Inspection Report Addendum Interim Removal Action UXO 8 - Pyrotechnics Area Outside Test Burn Pads**

### **Naval Support Activity Crane Crane, Indiana**



**Naval Facilities Engineering Command  
Midwest**

**Contract Number N62472-03-D-0057**

**Contract Task Order F272**

**November 2011**

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### **NUMBER**

1	Site Location Map
2	Pyro Area Outside Test Burn Pads

## ACRONYMS

AOC	Area of Concern
CLEAN	Comprehensive Long-Term Environmental Action Navy
CTO	Contract Task Order
FBL	Fixed-base Laboratory
HASP	Health and Safety Plan
IDEM	Indiana Department of Environmental Management
Micah	Micah Group Energy and Environmental
NAVFAC	Naval Facilities Engineering Command
NSA	Naval Support Activity
Pyro	Pyrotechnics
RCRA	Resource Conservation and Recovery Act
SI	Site Inspection
TCLP	Toxicity Characterization Leaching Procedure
Tetra Tech	Tetra Tech NUS, Inc.
UXO	Unexploded Ordnance



## **SITE INSPECTION REPORT ADDENDUM INTERIM REMOVAL ACTION – UXO 8**

Tetra Tech NUS, Inc. (Tetra Tech) has prepared this Site Inspection (SI) Report Addendum under Comprehensive Long-Term Environmental Action Navy (CLEAN) IV Contract No. N62472-03-D-0057, Contract Task Order (CTO) F272, for Naval Facilities Engineering Command (NAVFAC) Midwest. The work was performed at *UXO 8, formerly referred to as Area of Concern (AOC) 2 – Pyrotechnics (Pyro) Area Outside Test Burn Pads at Naval Support Activity (NSA) Crane, Indiana.*

This SI Addendum is a supplement to the previous SI Report prepared by Tetra Tech in August 2010. Background information regarding UXO 8 and NSA Crane is presented in the August 2010 SI Report.

The purpose of this SI Addendum is to report the field activities associated with removal of the two concrete test basins located within the Pyrotechnics Area at NSA Crane ([Photographs 1](#) and [2](#)). Based on the SI results, the concrete test basins appeared to be intact with solid concrete bottoms; therefore, the residual materials within the basins would not have any impact on the area outside of the basins. The SI Report recommended removal and proper disposal of residual material in the concrete basins followed by demolition and removal of the concrete basin structures. These recommendations were approved by both the Navy on August 6, 2010, and the Indiana Department of Environmental Management (IDEM) on September 9, 2010.

Based on the approved recommendations for the two concrete test basins, Tetra Tech prepared a Technical Memorandum Work Plan describing the implementation of demolition and removal of the two test basins. Activities included the following:

- Initial concrete debris removal from the two test basins, direct loading of debris into a roll-off box, and transport for off-site disposal.
- Removal of residual material from the floor of each test basin and placement of this material into properly labeled 55-gallon drums.
- Demolition of the concrete test basins and removal of the resulting material from the site along with any previously removed concrete debris associated with basin removal.

- Collection of a composite waste characterization sample from the residue material removed from each basin for Toxicity Characterization Leaching Procedure (TCLP) Resource Conservation and Recovery Act (RCRA) metals analysis at a Navy-approved fixed-base laboratory (FBL).
- Proper disposal of the drummed residues depending on analytical results.

The Work Plan for UXO 8, dated July 21, 2011, was approved by the Navy on July 22, 2011. The Navy then submitted the Work Plan to IDEM on July 25, 2011, and it was approved by IDEM on August 10, 2011.

The following sections of this SI Report Addendum present the field activities associated with removal of the two concrete test basins located at UXO 08 at NSA Crane, Indiana.

## OVERVIEW

UXO 8 is located in the north-central portion of NSA Crane in the Pyrotechnics Productions Area south of Highway 5 ([Figure 1](#)). UXO 8 covers approximately 0.002 acre of installation property that gently slopes to the southwest. UXO 8 lies approximately 300 feet west of Building 126 (B-126), which is the main building within the Pyrotechnic Area. A storage area and a grass and pavement area are located between UXO 8 and B-126. Several other buildings associated with pyrotechnics production are located in the immediate area of UXO 8. A fence surrounds the entire pyrotechnics testing and assembly area where the Pyro Area Outside Test Burn Pads were located. The fencing limits access to the pyrotechnics assembly buildings and access to UXO 8. The Pyro Area Outside Test Burn Pads consisted of two square concrete basins that were separated by approximately 30 feet ([Figure 2](#)). The basins were approximately 6 feet long, 6 feet wide, and 4 feet deep. Because the site surface slopes to the southwest, approximately 2 feet of sidewall on the upper eastern ends and approximately 1 foot of sidewall on the lower western ends of the basins extended below grade.

Work performed during this field event was conducted in accordance with the procedures and methodologies described in the July 21, 2011, Work Plan for NSA Crane, UXO 08 – Pyrotechnics (Pyro) Area Outside Test Burn Pads. Copies of all field records and field logbooks associated with this removal activity are provided in [Attachment A](#), and [Attachment B](#) provides a photographic journal of the removal activities.

## **MOBILIZATION/DEMOBILIZATION**

Upon approval of the Work Plan by the Navy and IDEM, Tetra Tech personnel began mobilization activities associated with the removal effort. Tetra Tech initiated contact with the Indiana Underground Plant Protection Services (Indiana one-call) to begin utility clearance activities. Tetra Tech procured a qualified subcontractor, Micah Group Energy and Environmental (Micah), a certified HUBZone small business, to perform the removal and sampling activities. Tetra Tech contacted the Pyro Area Site Supervisor to coordinate an acceptable work schedule and to set up an approved location where the roll-off box (dumpster) could be staged for the temporary containment of the concrete test basin debris during the test basins demolition and removal. Tetra Tech field team members reviewed the Work Plan and associated Health and Safety Plan (HASP) prior to the start of project activities. On August 26, 2011, Tetra Tech and Micah personnel mobilized to the site to begin removal actions. Prior to any work being conducted at the site, the Tetra Tech Field Operations Leader and Unexploded Ordnance (UXO) Technician held a safety briefing with all personnel to discuss potential hazards associated with the removal and to discuss the proposed sequence of activities. Upon completion of the demolition activities, all field equipment was removed from the site. Demolition and removal of the test basins at the Pyro Area occurred on August 26, 2011.

## **REMOVAL ACTIVITIES**

### **Silt Fence Installation**

To ensure no run-off from the disturbed area would affect the surrounding environment, Micah installed silt fencing down slope of each of the two concrete test basins ([Photograph 5](#)).

### **Test Basin Removal**

Removal activities began with the southern test basin. Prior to demolition of the concrete basin, the large pieces of concrete within the basin were removed ([Photograph 6](#)). The large pieces of concrete are presumed to be the result of a former concrete demolition project in this area. As the large pieces of concrete were removed from the basin, work was halted and the UXO Technician completed a quick visual observation of the uncovered materials remaining in the basin. After the large pieces of concrete were completely removed from the basin, Micah personnel collected a sample of the residue material in the bottom of the basin for analysis. The sample was a composite sample consisting of several small residue aliquots collected from various basin floor locations. Following residue sample collection, the remaining residue from the bottom of the basin was removed ([Photograph 10](#)). This material was containerized in a 55-gallon drum for later disposal. Upon removal of the residue from the basin floor,

Micah began to demolish the bottom of the basin. This proved more difficult than anticipated because the concrete was approximately 8 inches thick and contained extensive rebar ([Photographs 11](#) and [12](#)). Since the basin floor was too large to place into the roll-off box, a Bobcat with a hydraulic breaker attachment (jackhammer) was used to break up the concrete ([Photographs 13, 14, and 15](#)). [Photograph 11](#) provides a view of the bottom of the basin floor, which was completely intact. By using the jackhammer attachment, Micah was able to break up the concrete basin floor into manageable pieces, which were then placed into the roll-off box ([Photograph 15](#)).

After the area was cleared of all remaining concrete pieces, Micah roughly graded the ground surface so that work could continue with the northern basin.

As with the southern basin, the larger pieces of concrete within the basin were removed first. Again, the UXO Technician was allowed to observe the remaining material in the basin as each large piece was removed. Upon removal of the interior pieces of concrete, Micah personnel collected a composite sample from the residue on the basin floor. The remaining residue was then removed from the basin and placed in a 55-gallon drum ([Photograph 19](#)). After the residue was removed from the basin floor, the jackhammer was again used to break up the basin into manageable pieces until the entire basin was demolished and removed.

After removal of the northern basin was accomplished, the small excavation areas were backfilled with soil and re-graded to match pre-construction grades and surrounding surfaces ([Photograph 22](#)). The soil was compacted, and grass seed was then distributed throughout the site. A layer of straw was then placed on the site to prevent the washing away of the grass seed and to retain moisture in the soil for seed germination ([Photograph 24](#)).

### **Residue Material Sample Collection**

As previously mentioned, a waste characterization sample (composite sample) was collected from the residue within each of the two concrete test basins. The samples were then shipped to Pace Analytical Services, Inc. (Pace Analytical) located in Indianapolis, Indiana for TCLP metals analysis. The analytical test results determined that the residual material removed from the basins was non-hazardous; therefore, the two drums were removed from the site and properly disposed at Safety-Kleen in Indianapolis, Indiana on October 5, 2011. The waste characterization analytical results are provided in [Attachment C](#).

### **Residue Material Transport/Disposal**

The two 55-gallon drums were labeled as non-hazardous material, contact information was written on each label, and the drums were left on site in an area where they would not interfere with normal site operations. The concrete debris was loaded into the staged roll-off box for transport and disposal. The waste manifests for the 55-gallon drummed material and the roll-off concrete debris are provided in [Attachment D](#).

General site cleanup was completed by Micah personnel, and all personnel demobilized from the site.

### **CONCLUSIONS**

The following conclusions may be made regarding UXO 8 based on the performance and completion of the supplemental activities to dispose of the basin residues and remove the concrete basins from the site:

- Prior to removal and placement into drums, the residual material was sampled to characterize the nature of the material remaining in the concrete basins.
- When removed from concrete basins at UXO 8, the resulting residues filled two 55-gallon drums.
- Once emptied of residue, the concrete basins at UXO 8 were taken apart and demolished by Micah and placed in a roll-off box for disposal as demolition debris.
- The bottoms of the concrete basins were confirmed to be intact, and during demolition, it was observed that the basin walls and base contained extensive metal reinforcement.
- The basin residual materials were characterized as non-hazardous based on the results of the TCLP analyses ([Attachment C](#)).
- The drummed residual material from UXO 8 was transported from NSA Crane by USI United Waste of Middletown, Ohio to Safety-Kleen in Indianapolis, Indiana on October 5, 2011 ([Attachment D](#)).
- The test basin concrete debris was transported from NSA Crane by Allied Waste Industries, Inc to Good Earth Recycling in Bloomington, Indiana on October 13, 2011 ([Attachment D](#)).

- After the concrete basin materials were removed and placed in appropriate containers, the impacted areas of the UXO 8 area were backfilled and seeded as part of site restoration activities (Photograph 24).

An inspection of the area on November 16, 2011 indicated the grass seeding effort was successful (Photographs 25 and 26). Runoff is no longer a concern at the site and the silt fences are proposed for removal during December 2011.

The residue and basin removals at UXO 8 were completed during September 2011 and were performed in accordance with the HASP (Tetra Tech, 2011a) and Work Plan developed to support that activity (Tetra Tech, 2011b).

## RECOMMENDATIONS

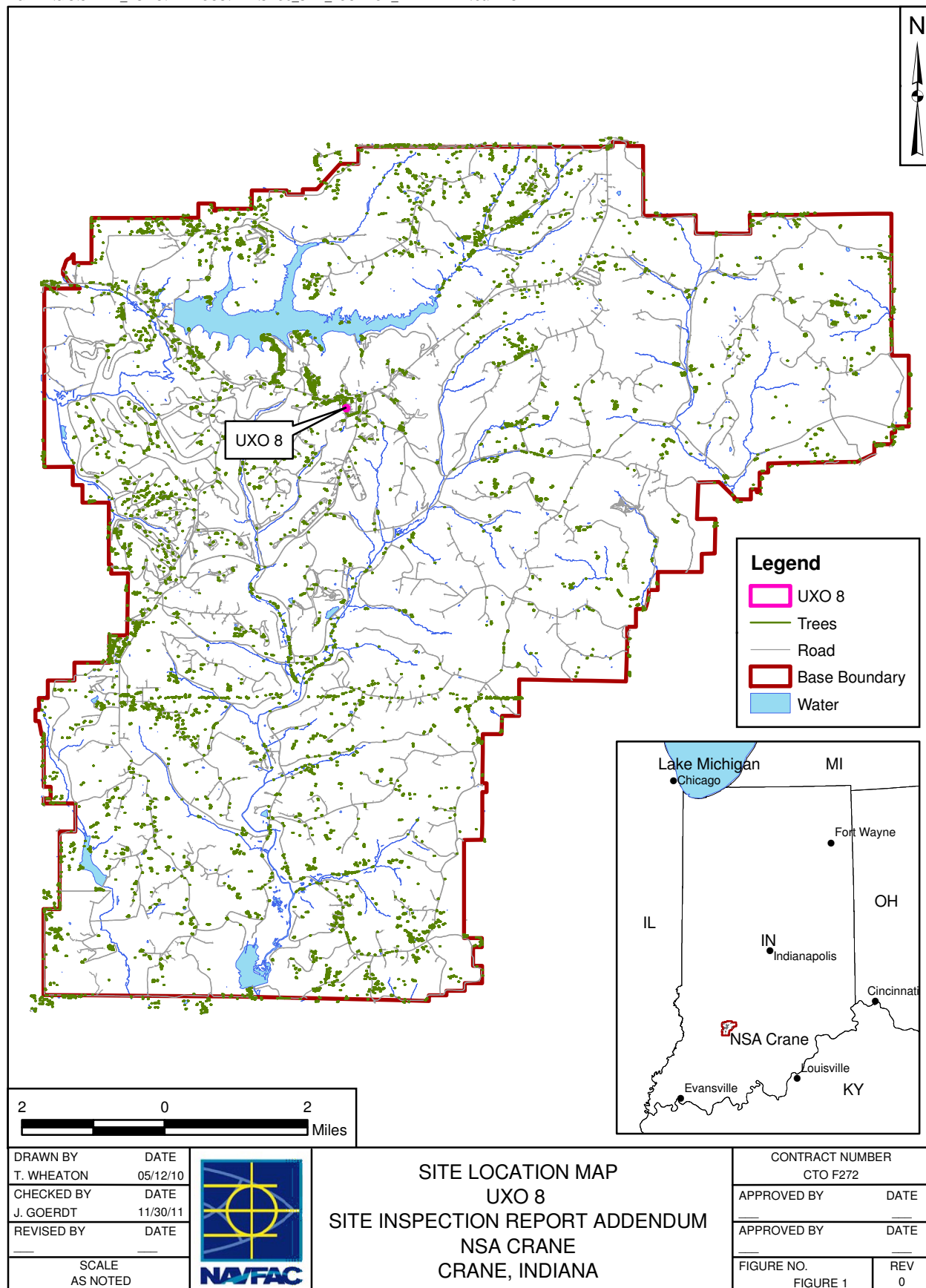
The residual materials were removed from the concrete basins at UXO 8 and disposed of at Safety-Kleen in Indianapolis, Indiana. During removal it was confirmed that the concrete basin bottoms were intact and there was no visual evidence of past releases beneath the basins. The two concrete basin structures that comprised the infrastructure at UXO 8 have been demolished and disposed of off-site at Good Earth Recycling in Bloomington, Indiana. The site has been backfilled, seeded, and restored. The interim removal action at UXO 8 has been completed. The threat of a release of potential munitions constituents from basin residues at UXO 8 has been eliminated. Consequently, no further action is recommended for the Pyro Area Outside Test Burn Pads Munitions Response Site at NSA Crane (formerly known as AOC 2 and currently as UXO 8).

## REFERENCES


Tetra Tech, 2010. Final Site Inspection Report for Munitions Response Program, Site Inspections at NAVFAC Midwest Munitions Response Sites and Areas of Concern, Naval Support Activity (NSA) Crane, Indiana, August.

Tetra Tech, 2011a. Health and Safety Plan – Soil Excavation and Debris Removal Actions, UXO 7 – Old Rifle Range and UXO 8 – Pyro Area Outside Test Burn Pads, NSA Crane, June.

Tetra Tech, 2011b. Technical Memorandum - Work Plan for Concrete Test Basin Removal at UXO 8, Pyrotechnic Area Outside Test Burn Pads, NSA Crane, Revision 1, July.





DRAWN BY S. STROZ	DATE 07/22/10	<div> Tetra Tech NUS, Inc.</div> <div>UXO 8 - PYRO AREA OUTSIDE TEST BURN PAD</div> <div>SITE INSPECTION REPORT ADDENDUM</div> <div>NSA CRANE</div> <div>CRANE, INDIANA</div>	CONTRACT NUMBER CTO F272	
CHECKED BY J. GOERDT	DATE 11/30/11		APPROVED BY _____	DATE _____
COST/SCHEDULE AREA			APPROVED BY _____	DATE _____
SCALE AS NOTED			FIGURE NO. 2	REV 0



**ATTACHMENT A**

**FIELD LOG BOOK**

NSA Crane  
UXO 08



*"Rite in the Rain"*®

ALL-WEATHER  
**JOURNAL**

No. 391

PL-151

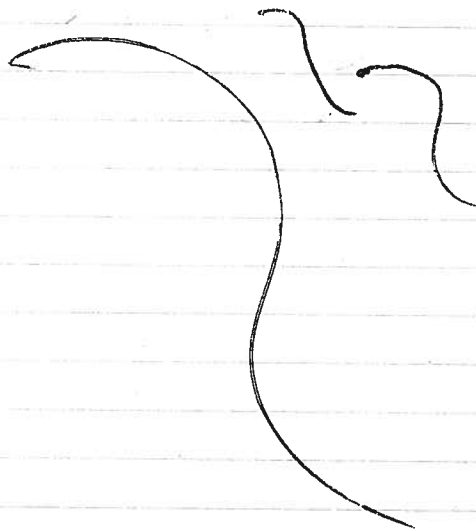


8/11/11

- Spoke w/ Kenny Barrett (812-854-3027) who is the Supervisor at the Crane Pyrotechnics Area (Uxo 8). Informed him we had received final approval to remove the two former concrete test basins at the site. Informed him of our schedule to do this work is Aug 26 & 27, 2011. He indicated that schedule was fine w/ him. I told Mr. Barrett that our subcontractor was planning on bringing a roll-off box to temporarily hold the concrete rubble. The roll off will be removed from the site on that Saturday (8/27) or the following Monday (8/29). I will meet w/ Kenny the week of 8/22 to

8/11/11

determine best location for the roll-off box. The above information was relayed to Tom Brunt via e-mail on 8/11/11.



J. Paul 8/11/11

8/15/11

1545 - Contacted IUPPS regarding utility clearance for Ux0 08. Intersection of Hwy 99 & Hwy 5. Go South on 99 675 feet, then east into field 115 feet. Clear a 10' radius ~~on both sides~~ around the two 6' x 6' concrete basins. Ticket 110 815 31 88 Exp. 9/4/11.

8/17/11

910 - Sent text message to Scott (512-554-1963) at Crane Pw giving him specific location for utility clearance.

8/26/11

0800 - met Ron Coleman at field trailer (Uxo Tech). Proceeded to Ux0 08. Micah sub to arrive around 0845. Showed Ron around the site so he could observe any obvious hazards. Roll-off box is on site.

0915 - Micah Group arrives on site. Ron Coleman holds a brief safety meeting. Installation of silt fence begins around 0940.

1000 - Demolition of the Southern basin commences. Inside height of the basin (floor to top of wall) is measured at 2' 10". Backhoe unable to grab

8/26/11 cont'd

hold of larger concrete pieces inside the basin so a side wall was taken out. The sides have a lot of rebar running through them. Upon removal of interior debris UXO Tech visually observes basin. Sample of residual material is collected by Micah.

1030 - Begin shoveling residue from bottom of basin. One 55-gallon drum is nearly filled. After several attempts, sub unable to break up bottom of basin. Decision was made to rent a Bobcat w/ an attached jackhammer.

1300 - Backfill material is delivered to the site.

8/26/11 (cont'd)

By 1430, work resumes w/ bobcat breaking up the concrete. Concrete broken into smaller pieces & then transferred to roll-off.

1530 - Work at the southern basin is complete, and work begins on the northern basin. Appears as though more residual material is in this basin.

1540 - Waste characterization sample is collected (north basin).

1600 - Tire on bobcat is punctured & goes flat. Determined air supply over at PW is available. Tire is patched &

8/26/11 (cont'd)

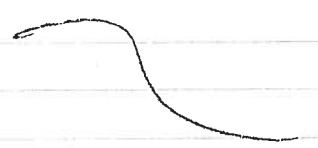
inflated & work resumes.

1630 - North basin is completely removed & backfill material is graded on site.

Drums are labeled as non-haz & placed to the side so as not to interfere w/ operations at the site.

Grass Seed is distributed over the site & then covered w/ a layer of straw to aid in seed germination.

1800 - Activities are complete. Equipment loaded & all personnel leave the site.



8-27-11

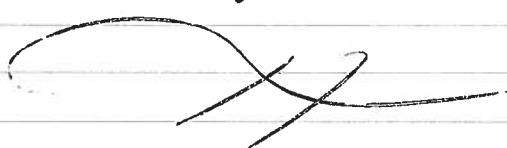
0900 - I stop by the site to ensure the area is clear of trash & other debris & take additional photos.

10-5-11

(2) 55-gallon drums removed by USI United Waste of Middletown, OH & transported to Safety-Kleen in Indianapolis, IN.

10-13-11

Roll off removed by Allied Waste Industries & transported to Good Earth Recycling in Bloomington, IN.



**ATTACHMENT B**

**SITE PHOTOGRAPHS**



## Attachment B - NSA Crane (UXO 8)



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** North

**DESCRIPTION:** General view of the two concrete basins.

1  
9/9/2009



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** North

**DESCRIPTION:** Northern test basin filled with concrete debris.

2  
9/9/2009



Tetra Tech NUS, Inc.



## Attachment B - NSA Crane (UXO 8)



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** South

**DESCRIPTION:** Roll-off utilized for temporary on-site storage  
of concrete debris.

3  
8/26/2011



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** West

**DESCRIPTION:** Tetra Tech utilized the Micah Group to  
perform the test basin demolition and removals.

4  
8/26/2011



Tetra Tech NUS, Inc.



## Attachment B - NSA Crane (UXO 8)



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** South

**DESCRIPTION:** Installation of the silt fence down slope of the test basins.

5  
8/26/2011



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** South

**DESCRIPTION:** Removal of a side wall allowing access to the large interior pieces of concrete (south basin).

6  
8/26/2011



Tetra Tech NUS, Inc.



## Attachment B - NSA Crane (UXO 8)



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** South

**DESCRIPTION:** Large piece of concrete located in the southern test basin.

7  
8/26/2011



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** South

**DESCRIPTION:** Removal of the southern test basin.

8  
8/26/2011



**Tetra Tech NUS, Inc.**



## Attachment B - NSA Crane (UXO 8)



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** South

**DESCRIPTION:** Removal of the southern test basin.

9  
8/26/2011



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** South

**DESCRIPTION:** Removal of residual material from within the  
southern test basin..

10  
8/26/2011



Tetra Tech NUS, Inc.



## Attachment B - NSA Crane (UXO 8)



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** East

**DESCRIPTION:** View showing the intact bottom of the  
southern test basin.

11  
8/26/2011



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** East

**DESCRIPTION:** View of the southern test basin showing the  
amount of rebar in the structure.

12  
8/26/2011



Tetra Tech NUS, Inc.



## Attachment B - NSA Crane (UXO 8)



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** South

**DESCRIPTION:** Bobcat with hydraulic breaker and backhoe  
working together to remove the southern basin.

13  
8/26/2011



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** East

**DESCRIPTION:** Removal of the southern test basin.

14  
8/26/2011



Tetra Tech NUS, Inc.



## Attachment B - NSA Crane (UXO 8)



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** South

**DESCRIPTION:** Cleanup of the southern test basin.

15  
8/26/2011



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** Northwest

**DESCRIPTION:** Removal of a large piece of concrete debris  
from within the northern test basin.

16  
8/26/2011



Tetra Tech NUS, Inc.



## Attachment B - NSA Crane (UXO 8)



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** Northwest

**DESCRIPTION:** Residual material located within the northern test basin.

17  
8/26/2011



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** Northwest

**DESCRIPTION:** Bottom of northern test basin after removal of residual material.

18  
8/26/2011



Tetra Tech NUS, Inc.



## Attachment B - NSA Crane (UXO 8)



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** Northwest

**DESCRIPTION:** Residual material removed from the northern  
test basin and collected in 55-gallon drum.

19  
8/26/2011



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** NA

**DESCRIPTION:** Residual material from both test basins  
contained within labeled 55-gallon drums.

20  
8/26/2011



Tetra Tech NUS, Inc.



## Attachment B - NSA Crane (UXO 8)



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** Northwest

**DESCRIPTION:** Concrete debris from test basins placed in staged roll-off box.

21  
8/26/2011



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** Northwest

**DESCRIPTION:** Grading of the former northern test basin.

22  
8/26/2011



Tetra Tech NUS, Inc.



## Attachment B - NSA Crane (UXO 8)



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** NA

**DESCRIPTION:** Clean backfill material.

23  
8/26/2011



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** Northwest

**DESCRIPTION:** View of the site after final grading, seeding,  
and application of straw cover.

24  
8/26/2011



Tetra Tech NUS, Inc.



## Attachment B - NSA Crane (UXO 8)



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** Northwest

**DESCRIPTION:** Overall view of the disturbed area after  
grass seed germination.

25  
11/16/2011



**SITE:** UXO 8  
Pyrotechnic  
Area Outside  
Test Burn Pads

**PHOTOGRAPHER:**  
J. Goerd  
**VIEW:** Northwest

**DESCRIPTION:** Close-up view of the disturbed area  
showing successful grass seed germination.

26  
11/16/2011



Tetra Tech NUS, Inc.

**ATTACHMENT C**

**LABORATORY WASTE CHARACTERIZATION DATA**

September 15, 2011

Mr. Craig Music  
Micah Group, LLC  
746 Westland Drive  
Suite 110  
Lexington, KY 40504

RE: Project: NSA Crane UXO 8 Demo.  
Pace Project No.: 5052117

Dear Mr. Music:

Enclosed are the analytical results for sample(s) received by the laboratory on August 30, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mick Mayse

mick.mayse@pacelabs.com  
Project Manager

Illinois/NELAC Certification #: 100418

Indiana Certification #: C-49-06

Kansas Certification #: E-10247

Kentucky Certification #: 0042

Louisiana Certification #: 04076

Ohio VAP: CL0065

West Virginia Certification #: 330

Enclosures



## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..

## SAMPLE SUMMARY

Project: NSA Crane UXO 8 Demo.

Pace Project No.: 5052117

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5052117001	UXO8P1	Solid	08/26/11 10:23	08/30/11 10:54
5052117002	UXO8P2	Solid	08/26/11 15:40	08/30/11 10:54

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: NSA Crane UXO 8 Demo.

Pace Project No.: 5052117

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
5052117001	UXO8P1	EPA 6010	LLB	7	PASI-I
		EPA 7470	LLB	1	PASI-I
		EPA 8270	KES	18	PASI-I
		EPA 8260	RSW	13	PASI-I
		EPA 1010	TPD	1	PASI-I
5052117002	UXO8P2	EPA 6010	LLB	7	PASI-I
		EPA 7470	LLB	1	PASI-I
		EPA 8270	KES	18	PASI-I
		EPA 8260	RSW	13	PASI-I
		EPA 1010	TPD	1	PASI-I

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## ANALYTICAL RESULTS

Project: NSA Crane UXO 8 Demo.

Pace Project No.: 5052117

Sample: UXO8P1 Lab ID: 5052117001 Collected: 08/26/11 10:23 Received: 08/30/11 10:54 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
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### 6010 MET ICP, TCLP

Analytical Method: EPA 6010 Preparation Method: EPA 3010

Leachate Method/Date: EPA 1311; 09/06/11 15:30

Arsenic	ND mg/L		0.10	1	09/09/11 00:00	09/13/11 09:58	7440-38-2	
Barium	97.0 mg/L		5.0	1	09/09/11 00:00	09/13/11 09:58	7440-39-3	
Cadmium	0.19 mg/L		0.050	1	09/09/11 00:00	09/13/11 09:58	7440-43-9	
Chromium	ND mg/L		0.10	1	09/09/11 00:00	09/13/11 09:58	7440-47-3	
Lead	0.16 mg/L		0.10	1	09/09/11 00:00	09/13/11 09:58	7439-92-1	
Selenium	ND mg/L		0.10	1	09/09/11 00:00	09/13/11 09:58	7782-49-2	
Silver	ND mg/L		0.50	1	09/09/11 00:00	09/13/11 09:58	7440-22-4	

### 7470 Mercury, TCLP

Analytical Method: EPA 7470 Preparation Method: EPA 7470

Leachate Method/Date: EPA 1311; 09/06/11 15:30

Mercury	ND ug/L		2.0	1	09/12/11 00:00	09/13/11 12:58	7439-97-6	
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### 8270 MSSV TCLP Sep Funnel

Analytical Method: EPA 8270 Preparation Method: EPA 3510

1,4-Dichlorobenzene	ND ug/L		100	1	09/08/11 10:46	09/12/11 16:32	106-46-7	
2,4-Dinitrotoluene	ND ug/L		100	1	09/08/11 10:46	09/12/11 16:32	121-14-2	
Hexachloro-1,3-butadiene	ND ug/L		100	1	09/08/11 10:46	09/12/11 16:32	87-68-3	
Hexachlorobenzene	ND ug/L		100	1	09/08/11 10:46	09/12/11 16:32	118-74-1	
Hexachloroethane	ND ug/L		100	1	09/08/11 10:46	09/12/11 16:32	67-72-1	
2-Methylphenol(o-Cresol)	ND ug/L		100	1	09/08/11 10:46	09/12/11 16:32	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/L		200	1	09/08/11 10:46	09/12/11 16:32		
Nitrobenzene	ND ug/L		100	1	09/08/11 10:46	09/12/11 16:32	98-95-3	
Pentachlorophenol	ND ug/L		500	1	09/08/11 10:46	09/12/11 16:32	87-86-5	
Pyridine	ND ug/L		100	1	09/08/11 10:46	09/12/11 16:32	110-86-1	
2,4,5-Trichlorophenol	ND ug/L		500	1	09/08/11 10:46	09/12/11 16:32	95-95-4	
2,4,6-Trichlorophenol	ND ug/L		100	1	09/08/11 10:46	09/12/11 16:32	88-06-2	
Nitrobenzene-d5 (S)	83 %		33-108	1	09/08/11 10:46	09/12/11 16:32	4165-60-0	
2-Fluorobiphenyl (S)	89 %		34-106	1	09/08/11 10:46	09/12/11 16:32	321-60-8	
Terphenyl-d14 (S)	93 %		31-122	1	09/08/11 10:46	09/12/11 16:32	1718-51-0	
Phenol-d6 (S)	23 %		10-56	1	09/08/11 10:46	09/12/11 16:32	13127-88-3	
2-Fluorophenol (S)	44 %		10-74	1	09/08/11 10:46	09/12/11 16:32	367-12-4	
2,4,6-Tribromophenol (S)	96 %		32-124	1	09/08/11 10:46	09/12/11 16:32	118-79-6	

### 8260 MSV TCLP

Analytical Method: EPA 8260

Benzene	ND ug/L		50.0	1		09/10/11 10:46	71-43-2	
2-Butanone (MEK)	ND ug/L		1000	1		09/10/11 10:46	78-93-3	
Carbon tetrachloride	ND ug/L		50.0	1		09/10/11 10:46	56-23-5	
Chlorobenzene	ND ug/L		50.0	1		09/10/11 10:46	108-90-7	
Chloroform	ND ug/L		50.0	1		09/10/11 10:46	67-66-3	
1,2-Dichloroethane	ND ug/L		50.0	1		09/10/11 10:46	107-06-2	
1,1-Dichloroethene	ND ug/L		50.0	1		09/10/11 10:46	75-35-4	
Tetrachloroethene	ND ug/L		50.0	1		09/10/11 10:46	127-18-4	
Trichloroethene	ND ug/L		50.0	1		09/10/11 10:46	79-01-6	
Vinyl chloride	ND ug/L		20.0	1		09/10/11 10:46	75-01-4	
Toluene-d8 (S)	104 %		81-114	1		09/10/11 10:46	2037-26-5	

Date: 09/15/2011 12:01 PM

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: NSA Crane UXO 8 Demo.

Pace Project No.: 5052117

**Sample:** UXO8P1 **Lab ID:** 5052117001 Collected: 08/26/11 10:23 Received: 08/30/11 10:54 Matrix: Solid

**Results reported on a "wet-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV TCLP</b>		Analytical Method: EPA 8260						
4-Bromofluorobenzene (S)	100 %		72-125	1		09/10/11 10:46	460-00-4	
Dibromofluoromethane (S)	99 %		83-123	1		09/10/11 10:46	1868-53-7	
<b>1010 Flashpoint,Closed Cup</b>		Analytical Method: EPA 1010						
Flashpoint	>180 deg F			1		09/12/11 13:06		

## ANALYTICAL RESULTS

Project: NSA Crane UXO 8 Demo.

Pace Project No.: 5052117

Sample: UXO8P2 Lab ID: 5052117002 Collected: 08/26/11 15:40 Received: 08/30/11 10:54 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, TCLP</b>								
Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Leachate Method/Date: EPA 1311; 09/06/11 15:30								
Arsenic	ND	mg/L	0.10	1	09/09/11 00:00	09/13/11 10:05	7440-38-2	
Barium	55.5	mg/L	5.0	1	09/09/11 00:00	09/13/11 10:05	7440-39-3	
Cadmium	0.095	mg/L	0.050	1	09/09/11 00:00	09/13/11 10:05	7440-43-9	
Chromium	ND	mg/L	0.10	1	09/09/11 00:00	09/13/11 10:05	7440-47-3	
Lead	0.26	mg/L	0.10	1	09/09/11 00:00	09/13/11 10:05	7439-92-1	
Selenium	ND	mg/L	0.10	1	09/09/11 00:00	09/13/11 10:05	7782-49-2	
Silver	ND	mg/L	0.50	1	09/09/11 00:00	09/13/11 10:05	7440-22-4	

### 7470 Mercury, TCLP

Analytical Method: EPA 7470 Preparation Method: EPA 7470

Leachate Method/Date: EPA 1311; 09/06/11 15:30

Mercury	ND	ug/L	2.0	1	09/12/11 00:00	09/13/11 13:02	7439-97-6	
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### 8270 MSSV TCLP Sep Funnel

Analytical Method: EPA 8270 Preparation Method: EPA 3510

1,4-Dichlorobenzene	ND	ug/L	100	1	09/08/11 10:46	09/12/11 17:11	106-46-7	
2,4-Dinitrotoluene	ND	ug/L	100	1	09/08/11 10:46	09/12/11 17:11	121-14-2	
Hexachloro-1,3-butadiene	ND	ug/L	100	1	09/08/11 10:46	09/12/11 17:11	87-68-3	
Hexachlorobenzene	ND	ug/L	100	1	09/08/11 10:46	09/12/11 17:11	118-74-1	
Hexachloroethane	ND	ug/L	100	1	09/08/11 10:46	09/12/11 17:11	67-72-1	
2-Methylphenol(o-Cresol)	ND	ug/L	100	1	09/08/11 10:46	09/12/11 17:11	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	200	1	09/08/11 10:46	09/12/11 17:11		
Nitrobenzene	ND	ug/L	100	1	09/08/11 10:46	09/12/11 17:11	98-95-3	
Pentachlorophenol	ND	ug/L	500	1	09/08/11 10:46	09/12/11 17:11	87-86-5	
Pyridine	ND	ug/L	100	1	09/08/11 10:46	09/12/11 17:11	110-86-1	
2,4,5-Trichlorophenol	ND	ug/L	500	1	09/08/11 10:46	09/12/11 17:11	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	100	1	09/08/11 10:46	09/12/11 17:11	88-06-2	
Nitrobenzene-d5 (S)	85 %		33-108	1	09/08/11 10:46	09/12/11 17:11	4165-60-0	
2-Fluorobiphenyl (S)	86 %		34-106	1	09/08/11 10:46	09/12/11 17:11	321-60-8	
Terphenyl-d14 (S)	92 %		31-122	1	09/08/11 10:46	09/12/11 17:11	1718-51-0	
Phenol-d6 (S)	24 %		10-56	1	09/08/11 10:46	09/12/11 17:11	13127-88-3	
2-Fluorophenol (S)	44 %		10-74	1	09/08/11 10:46	09/12/11 17:11	367-12-4	
2,4,6-Tribromophenol (S)	94 %		32-124	1	09/08/11 10:46	09/12/11 17:11	118-79-6	

### 8260 MSV TCLP

Analytical Method: EPA 8260

Benzene	ND	ug/L	50.0	1		09/10/11 11:55	71-43-2	
2-Butanone (MEK)	ND	ug/L	1000	1		09/10/11 11:55	78-93-3	
Carbon tetrachloride	ND	ug/L	50.0	1		09/10/11 11:55	56-23-5	
Chlorobenzene	ND	ug/L	50.0	1		09/10/11 11:55	108-90-7	
Chloroform	ND	ug/L	50.0	1		09/10/11 11:55	67-66-3	
1,2-Dichloroethane	ND	ug/L	50.0	1		09/10/11 11:55	107-06-2	
1,1-Dichloroethene	ND	ug/L	50.0	1		09/10/11 11:55	75-35-4	
Tetrachloroethene	ND	ug/L	50.0	1		09/10/11 11:55	127-18-4	
Trichloroethene	ND	ug/L	50.0	1		09/10/11 11:55	79-01-6	
Vinyl chloride	ND	ug/L	20.0	1		09/10/11 11:55	75-01-4	
Toluene-d8 (S)	98 %		81-114	1		09/10/11 11:55	2037-26-5	

Date: 09/15/2011 12:01 PM

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## ANALYTICAL RESULTS

Project: NSA Crane UXO 8 Demo.

Pace Project No.: 5052117

**Sample:** UXO8P2      **Lab ID:** 5052117002      Collected: 08/26/11 15:40      Received: 08/30/11 10:54      Matrix: Solid

**Results reported on a "wet-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV TCLP</b>		Analytical Method: EPA 8260						
4-Bromofluorobenzene (S)	102 %		72-125	1		09/10/11 11:55	460-00-4	
Dibromofluoromethane (S)	100 %		83-123	1		09/10/11 11:55	1868-53-7	
<b>1010 Flashpoint,Closed Cup</b>		Analytical Method: EPA 1010						
Flashpoint	>180 deg F			1		09/12/11 14:33		

## QUALITY CONTROL DATA

Project: NSA Crane UXO 8 Demo.

Pace Project No.: 5052117

QC Batch: MPRP/7942

Analysis Method: EPA 6010

QC Batch Method: EPA 3010

Analysis Description: 6010 MET TCLP

Associated Lab Samples: 5052117001, 5052117002

METHOD BLANK: 619903

Matrix: Water

Associated Lab Samples: 5052117001, 5052117002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.10	09/13/11 09:18	
Barium	mg/L	ND	5.0	09/13/11 09:18	
Cadmium	mg/L	ND	0.050	09/13/11 09:18	
Chromium	mg/L	ND	0.10	09/13/11 09:18	
Lead	mg/L	ND	0.10	09/13/11 09:18	
Selenium	mg/L	ND	0.10	09/13/11 09:18	
Silver	mg/L	ND	0.50	09/13/11 09:18	

LABORATORY CONTROL SAMPLE & LCSD: 619904

619905

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Arsenic	mg/L	10	9.9	9.9	99	99	80-120	.2	20	
Barium	mg/L	10	10.1	10.2	101	102	80-120	.4	20	
Cadmium	mg/L	10	10	10.0	100	100	80-120	.5	20	
Chromium	mg/L	10	9.7	9.8	97	98	80-120	.9	20	
Lead	mg/L	10	9.5	9.5	95	95	80-120	.2	20	
Selenium	mg/L	10	9.6	9.7	96	97	80-120	.6	20	
Silver	mg/L	5	5.0	5.0	100	101	80-120	.9	20	

MATRIX SPIKE SAMPLE: 619906

Parameter	Units	5052360001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	ND	10	10	99	50-150	
Barium	mg/L	ND	10	12.3	103	50-150	
Cadmium	mg/L	130 ug/L	10	10.3	101	50-150	
Chromium	mg/L	ND	10	9.8	97	50-150	
Lead	mg/L	114	10	119	42	50-150 P6	
Selenium	mg/L	ND	10	9.7	97	50-150	
Silver	mg/L	ND	5	5.0	101	50-150	

MATRIX SPIKE SAMPLE: 619907

Parameter	Units	5052117001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	ND	10	10.0	100	50-150	
Barium	mg/L	97.0	10	97.2	3	50-150 P6	
Cadmium	mg/L	0.19	10	10.4	102	50-150	
Chromium	mg/L	ND	10	10	100	50-150	
Lead	mg/L	0.16	10	9.6	94	50-150	

Date: 09/15/2011 12:01 PM

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: NSA Crane UXO 8 Demo.

Pace Project No.: 5052117

MATRIX SPIKE SAMPLE:		619907					
Parameter	Units	5052117001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Selenium	mg/L	ND	10	9.8	98	50-150	
Silver	mg/L	ND	5	5.2	104	50-150	

MATRIX SPIKE SAMPLE:		619908					
Parameter	Units	5052119001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	ND	10	9.9	99	50-150	
Barium	mg/L	ND	10	11.1	103	50-150	
Cadmium	mg/L	ND	10	10.1	101	50-150	
Chromium	mg/L	ND	10	10	100	50-150	
Lead	mg/L	ND	10	9.4	93	50-150	
Selenium	mg/L	ND	10	9.7	97	50-150	
Silver	mg/L	ND	5	5.2	104	50-150	

MATRIX SPIKE SAMPLE:		619909					
Parameter	Units	5052104001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	ND	10	10	100	50-150	
Barium	mg/L	ND	10	11.0	104	50-150	
Cadmium	mg/L	ND	10	10.1	101	50-150	
Chromium	mg/L	ND	10	10.0	100	50-150	
Lead	mg/L	ND	10	9.4	94	50-150	
Selenium	mg/L	ND	10	9.7	97	50-150	
Silver	mg/L	ND	5	5.2	104	50-150	

MATRIX SPIKE SAMPLE:		619910					
Parameter	Units	5052294001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	ND	10	10.0	100	50-150	
Barium	mg/L	ND	10	10.5	102	50-150	
Cadmium	mg/L	0.057	10	10.2	101	50-150	
Chromium	mg/L	ND	10	9.8	97	50-150	
Lead	mg/L	0.90	10	10.0	91	50-150	
Selenium	mg/L	ND	10	9.7	97	50-150	
Silver	mg/L	ND	5	5.1	102	50-150	

MATRIX SPIKE SAMPLE:		619911					
Parameter	Units	5052253001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	ND	10	10.1	101	50-150	
Barium	mg/L	ND	10	11.2	103	50-150	
Cadmium	mg/L	ND	10	10.3	103	50-150	

## QUALITY CONTROL DATA

Project: NSA Crane UXO 8 Demo.

Pace Project No.: 5052117

MATRIX SPIKE SAMPLE:		619911					
Parameter	Units	5052253001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium	mg/L	ND	10	10.0	100	50-150	
Lead	mg/L	ND	10	9.5	95	50-150	
Selenium	mg/L	ND	10	9.8	98	50-150	
Silver	mg/L	ND	5	5.2	104	50-150	



## QUALITY CONTROL DATA

Project: NSA Crane UXO 8 Demo.

Pace Project No.: 5052117

QC Batch:	MERP/3407	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury TCLP
Associated Lab Samples:	5052117001, 5052117002		

METHOD BLANK:	621008	Matrix:	Water
Associated Lab Samples:	5052117001, 5052117002		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	2.0	09/13/11 12:46	

LABORATORY CONTROL SAMPLE & LCSD:		621009	621010							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Mercury	ug/L	15	14.5	14.7	97	98	80-120	1	20	

MATRIX SPIKE SAMPLE:	621012	5052110001	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Parameter	Units	Result	Conc.				
Mercury	ug/L	ND	15	15.3	102	75-125	

MATRIX SPIKE SAMPLE:	621013	5052117001	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Parameter	Units	Result	Conc.				
Mercury	ug/L	ND	15	14.6	97	75-125	

MATRIX SPIKE SAMPLE:	621014	5052119001	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Parameter	Units	Result	Conc.				
Mercury	ug/L	ND	15	14.6	97	75-125	

MATRIX SPIKE SAMPLE:	621015	5052104001	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Parameter	Units	Result	Conc.				
Mercury	ug/L	ND	15	14.3	95	75-125	

MATRIX SPIKE SAMPLE:	621016	5052294001	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Parameter	Units	Result	Conc.				
Mercury	ug/L	ND	15	14.9	99	75-125	

## QUALITY CONTROL DATA

Project: NSA Crane UXO 8 Demo.

Pace Project No.: 5052117

QC Batch: OEXT/26807

Analysis Method: EPA 8270

QC Batch Method: EPA 3510

Analysis Description: 8270 TCLP MSSV

Associated Lab Samples: 5052117001, 5052117002

METHOD BLANK: 618993

Matrix: Water

Associated Lab Samples: 5052117001, 5052117002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dichlorobenzene	ug/L	ND	100	09/12/11 15:13	
2,4,5-Trichlorophenol	ug/L	ND	500	09/12/11 15:13	
2,4,6-Trichlorophenol	ug/L	ND	100	09/12/11 15:13	
2,4-Dinitrotoluene	ug/L	ND	100	09/12/11 15:13	
2-Methylphenol(o-Cresol)	ug/L	ND	100	09/12/11 15:13	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	200	09/12/11 15:13	
Hexachloro-1,3-butadiene	ug/L	ND	100	09/12/11 15:13	
Hexachlorobenzene	ug/L	ND	100	09/12/11 15:13	
Hexachloroethane	ug/L	ND	100	09/12/11 15:13	
Nitrobenzene	ug/L	ND	100	09/12/11 15:13	
Pentachlorophenol	ug/L	ND	500	09/12/11 15:13	
Pyridine	ug/L	ND	100	09/12/11 15:13	
2,4,6-Tribromophenol (S)	%	96	32-124	09/12/11 15:13	
2-Fluorobiphenyl (S)	%	80	34-106	09/12/11 15:13	
2-Fluorophenol (S)	%	50	10-74	09/12/11 15:13	
Nitrobenzene-d5 (S)	%	77	33-108	09/12/11 15:13	
Phenol-d6 (S)	%	29	10-56	09/12/11 15:13	
Terphenyl-d14 (S)	%	93	31-122	09/12/11 15:13	

LABORATORY CONTROL SAMPLE: 618994

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	1000	763	76	30-92	
2,4,5-Trichlorophenol	ug/L	1000	954	95	39-125	
2,4,6-Trichlorophenol	ug/L	1000	907	91	38-125	
2,4-Dinitrotoluene	ug/L	1000	761	76	38-119	
2-Methylphenol(o-Cresol)	ug/L	1000	810	81	31-106	
3&4-Methylphenol(m&p Cresol)	ug/L	2000	1330	66	24-97	
Hexachloro-1,3-butadiene	ug/L	1000	731	73	16-115	
Hexachlorobenzene	ug/L	1000	932	93	33-124	
Hexachloroethane	ug/L	1000	701	70	16-100	
Nitrobenzene	ug/L	1000	837	84	35-114	
Pentachlorophenol	ug/L	1000	756	76	14-131	
Pyridine	ug/L	1000	205	20	10-61	
2,4,6-Tribromophenol (S)	%			100	32-124	
2-Fluorobiphenyl (S)	%			88	34-106	
2-Fluorophenol (S)	%			47	10-74	
Nitrobenzene-d5 (S)	%			80	33-108	
Phenol-d6 (S)	%			27	10-56	
Terphenyl-d14 (S)	%			91	31-122	

## QUALITY CONTROL DATA

Project: NSA Crane UXO 8 Demo.

Pace Project No.: 5052117

MATRIX SPIKE SAMPLE:	618995						
Parameter	Units	5052066002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	ND	1000	605	60	35-102	
2,4,5-Trichlorophenol	ug/L	ND	1000	771	77	60-121	
2,4,6-Trichlorophenol	ug/L	ND	1000	758	76	57-125	
2,4-Dinitrotoluene	ug/L	ND	1000	623	62	37-114	
2-Methylphenol(o-Cresol)	ug/L	ND	1000	675	68	41-111	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	2000	1120	56	32-111	
Hexachloro-1,3-butadiene	ug/L	ND	1000	566	57	20-114	
Hexachlorobenzene	ug/L	ND	1000	773	77	32-125	
Hexachloroethane	ug/L	ND	1000	525	52	22-101	
Nitrobenzene	ug/L	ND	1000	718	72	50-113	
Pentachlorophenol	ug/L	ND	1000	554	55	25-117	
Pyridine	ug/L	ND	1000	304	30	10-112	
2,4,6-Tribromophenol (S)	%				81	32-124	
2-Fluorobiphenyl (S)	%				69	34-106	
2-Fluorophenol (S)	%				40	10-74	
Nitrobenzene-d5 (S)	%				68	33-108	
Phenol-d6 (S)	%				22	10-56	
Terphenyl-d14 (S)	%				79	31-122	

MATRIX SPIKE SAMPLE:	618996						
Parameter	Units	5052117001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	ND	1000	795	80	35-102	
2,4,5-Trichlorophenol	ug/L	ND	1000	942	94	60-121	
2,4,6-Trichlorophenol	ug/L	ND	1000	919	92	57-125	
2,4-Dinitrotoluene	ug/L	ND	1000	783	78	37-114	
2-Methylphenol(o-Cresol)	ug/L	ND	1000	776	78	41-111	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	2000	1280	64	32-111	
Hexachloro-1,3-butadiene	ug/L	ND	1000	745	74	20-114	
Hexachlorobenzene	ug/L	ND	1000	972	97	32-125	
Hexachloroethane	ug/L	ND	1000	699	70	22-101	
Nitrobenzene	ug/L	ND	1000	850	85	50-113	
Pentachlorophenol	ug/L	ND	1000	725	72	25-117	
Pyridine	ug/L	ND	1000	173	17	10-112	
2,4,6-Tribromophenol (S)	%				100	32-124	
2-Fluorobiphenyl (S)	%				89	34-106	
2-Fluorophenol (S)	%				46	10-74	
Nitrobenzene-d5 (S)	%				85	33-108	
Phenol-d6 (S)	%				27	10-56	
Terphenyl-d14 (S)	%				92	31-122	

MATRIX SPIKE SAMPLE:		618997					
Parameter	Units	5052294001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	ND	1000	707	71	35-102	

## QUALITY CONTROL DATA

Project: NSA Crane UXO 8 Demo.

Pace Project No.: 5052117

MATRIX SPIKE SAMPLE:		618997					
Parameter	Units	5052294001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
2,4,5-Trichlorophenol	ug/L	ND	1000	888	89	60-121	
2,4,6-Trichlorophenol	ug/L	ND	1000	864	86	57-125	
2,4-Dinitrotoluene	ug/L	ND	1000	740	74	37-114	
2-Methylphenol(o-Cresol)	ug/L	ND	1000	717	72	41-111	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	2000	1220	61	32-111	
Hexachloro-1,3-butadiene	ug/L	ND	1000	675	67	20-114	
Hexachlorobenzene	ug/L	ND	1000	907	91	32-125	
Hexachloroethane	ug/L	ND	1000	616	62	22-101	
Nitrobenzene	ug/L	ND	1000	805	81	50-113	
Pentachlorophenol	ug/L	ND	1000	751	75	25-117	
Pyridine	ug/L	ND	1000	332	33	10-112	
2,4,6-Tribromophenol (S)	%				97	32-124	
2-Fluorobiphenyl (S)	%				80	34-106	
2-Fluorophenol (S)	%				41	10-74	
Nitrobenzene-d5 (S)	%				77	33-108	
Phenol-d6 (S)	%				23	10-56	
Terphenyl-d14 (S)	%				92	31-122	

## QUALITY CONTROL DATA

Project: NSA Crane UXO 8 Demo.

Pace Project No.: 5052117

QC Batch: MSV/35574

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV TCLP

Associated Lab Samples: 5052117001, 5052117002

METHOD BLANK: 621287

Matrix: Water

Associated Lab Samples: 5052117001, 5052117002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1-Dichloroethene	ug/L	ND	50.0	09/10/11 02:36	
1,2-Dichloroethane	ug/L	ND	50.0	09/10/11 02:36	
2-Butanone (MEK)	ug/L	ND	1000	09/10/11 02:36	
Benzene	ug/L	ND	50.0	09/10/11 02:36	
Carbon tetrachloride	ug/L	ND	50.0	09/10/11 02:36	
Chlorobenzene	ug/L	ND	50.0	09/10/11 02:36	
Chloroform	ug/L	ND	50.0	09/10/11 02:36	
Tetrachloroethene	ug/L	ND	50.0	09/10/11 02:36	
Trichloroethene	ug/L	ND	50.0	09/10/11 02:36	
Vinyl chloride	ug/L	ND	20.0	09/10/11 02:36	
4-Bromofluorobenzene (S)	%	101	72-125	09/10/11 02:36	
Dibromofluoromethane (S)	%	100	83-123	09/10/11 02:36	
Toluene-d8 (S)	%	101	81-114	09/10/11 02:36	

LABORATORY CONTROL SAMPLE: 621288

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	500	476	95	75-145	
1,2-Dichloroethane	ug/L	500	425	85	71-127	
2-Butanone (MEK)	ug/L	2500	1370	55	42-177	
Benzene	ug/L	500	414	83	76-123	
Carbon tetrachloride	ug/L	500	424	85	65-125	
Chlorobenzene	ug/L	500	436	87	78-120	
Chloroform	ug/L	500	407	81	73-122	
Tetrachloroethene	ug/L	500	459	92	57-125	
Trichloroethene	ug/L	500	454	91	77-122	
Vinyl chloride	ug/L	500	484	97	61-146	
4-Bromofluorobenzene (S)	%			103	72-125	
Dibromofluoromethane (S)	%			98	83-123	
Toluene-d8 (S)	%			102	81-114	

MATRIX SPIKE SAMPLE: 621289

Parameter	Units	5052066001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	ND	500	533	107	54-152	
1,2-Dichloroethane	ug/L	ND	500	482	96	42-139	
2-Butanone (MEK)	ug/L	ND	2500	1180	47	43-142	
Benzene	ug/L	ND	500	462	92	52-134	
Carbon tetrachloride	ug/L	ND	500	427	85	26-136	
Chlorobenzene	ug/L	ND	500	463	93	33-136	

Date: 09/15/2011 12:01 PM

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: NSA Crane UXO 8 Demo.

Pace Project No.: 5052117

MATRIX SPIKE SAMPLE:		621289					
Parameter	Units	5052066001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloroform	ug/L	ND	500	455	91	50-134	
Tetrachloroethene	ug/L	ND	500	467	93	30-124	
Trichloroethene	ug/L	ND	500	477	95	44-130	
Vinyl chloride	ug/L	ND	500	570	114	45-159	
4-Bromofluorobenzene (S)	%				98	72-125	
Dibromofluoromethane (S)	%				100	83-123	
Toluene-d8 (S)	%				100	81-114	

MATRIX SPIKE SAMPLE:		621290					
Parameter	Units	5052294001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	ND	500	507	101	54-152	
1,2-Dichloroethane	ug/L	ND	500	478	96	42-139	
2-Butanone (MEK)	ug/L	ND	2500	1440	57	43-142	
Benzene	ug/L	ND	500	432	86	52-134	
Carbon tetrachloride	ug/L	ND	500	392	78	26-136	
Chlorobenzene	ug/L	ND	500	336	67	33-136	
Chloroform	ug/L	ND	500	432	86	50-134	
Tetrachloroethene	ug/L	ND	500	347	69	30-124	
Trichloroethene	ug/L	ND	500	405	81	44-130	
Vinyl chloride	ug/L	ND	500	550	110	45-159	
4-Bromofluorobenzene (S)	%				95	72-125	
Dibromofluoromethane (S)	%				100	83-123	
Toluene-d8 (S)	%				100	81-114	

MATRIX SPIKE SAMPLE:		621291					
Parameter	Units	5052117001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	ND	500	504	101	54-152	
1,2-Dichloroethane	ug/L	ND	500	475	95	42-139	
2-Butanone (MEK)	ug/L	ND	2500	1260	50	43-142	
Benzene	ug/L	ND	500	407	81	52-134	
Carbon tetrachloride	ug/L	ND	500	368	74	26-136	
Chlorobenzene	ug/L	ND	500	308	62	33-136	
Chloroform	ug/L	ND	500	415	83	50-134	
Tetrachloroethene	ug/L	ND	500	297	59	30-124	
Trichloroethene	ug/L	ND	500	370	74	44-130	
Vinyl chloride	ug/L	ND	500	548	110	45-159	
4-Bromofluorobenzene (S)	%				102	72-125	
Dibromofluoromethane (S)	%				101	83-123	
Toluene-d8 (S)	%				99	81-114	

## QUALITY CONTROL DATA

Project: NSA Crane UXO 8 Demo.

Pace Project No.: 5052117

MATRIX SPIKE SAMPLE:		621292					
Parameter	Units	5052117002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	ND	500	474	95	54-152	
1,2-Dichloroethane	ug/L	ND	500	455	91	42-139	
2-Butanone (MEK)	ug/L	ND	2500	1220	49	43-142	
Benzene	ug/L	ND	500	386	77	52-134	
Carbon tetrachloride	ug/L	ND	500	352	70	26-136	
Chlorobenzene	ug/L	ND	500	272	54	33-136	
Chloroform	ug/L	ND	500	406	81	50-134	
Tetrachloroethene	ug/L	ND	500	247	49	30-124	
Trichloroethene	ug/L	ND	500	347	69	44-130	
Vinyl chloride	ug/L	ND	500	529	106	45-159	
4-Bromofluorobenzene (S)	%				99	72-125	
Dibromofluoromethane (S)	%				104	83-123	
Toluene-d8 (S)	%				98	81-114	

MATRIX SPIKE SAMPLE:		621293					
Parameter	Units	5052104001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	ND	500	599	120	54-152	
1,2-Dichloroethane	ug/L	ND	500	573	115	42-139	
2-Butanone (MEK)	ug/L	ND	2500	1410	57	43-142	
Benzene	ug/L	ND	500	508	102	52-134	
Carbon tetrachloride	ug/L	ND	500	452	90	26-136	
Chlorobenzene	ug/L	ND	500	406	81	33-136	
Chloroform	ug/L	ND	500	505	101	50-134	
Tetrachloroethene	ug/L	ND	500	402	80	30-124	
Trichloroethene	ug/L	ND	500	469	94	44-130	
Vinyl chloride	ug/L	ND	500	663	133	45-159	
4-Bromofluorobenzene (S)	%				98	72-125	
Dibromofluoromethane (S)	%				101	83-123	
Toluene-d8 (S)	%				99	81-114	

## QUALIFIERS

Project: NSA Crane UXO 8 Demo.

Pace Project No.: 5052117

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

### LABORATORIES

PASI-I Pace Analytical Services - Indianapolis

### ANALYTE QUALIFIERS

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.





Pace Analytical Services, Inc.  
1000 Riverbend Blvd. Suite F  
St. Rose, LA 70087  
(504) 469-0333

September 14, 2011

Mick Mayse  
PASI Indianapolis  
7726 Moller Road  
Indianapolis, IN 46268

RE: Project 20127658  
Project ID: 5052117/MICAH GROUP

Dear Mick Mayse:

Enclosed are the analytical results for sample(s) received by the laboratory on August 31, 2011. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Karen Brown", written in a cursive style.

Karen Brown  
karen.brown@pacelabs.com



## REPORT OF LABORATORY ANALYSIS

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Cover No Results 9/14/2011 18:30



## Laboratory Certifications

Pace Analytical Services, Inc.  
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St. Rose, LA 70087  
(504) 469-0333

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**Project:** 20127658

**Client:** PASI Indianapolis

**Project ID:** 5052117/MICAH GROUP

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Washington Department of Ecology C2078  
Oregon Environmental Laboratory Accreditation - LA200001  
U.S. Dept. of Agriculture Foreign Soil Import P330-10-00119  
Pennsylvania Dept. of Env Protection (NELAC) 68-04202  
Texas Commission on Env. Quality (NELAC) T104704405-09-TX  
Kansas Department of Health and Environment (NELAC) E-10266  
Florida Department of Health (NELAC) E87595  
Oklahoma Department of Environmental Quality - 2010-139  
Illinois Environmental Protection Agency - 0025721  
California Env. Lab Accreditation Program Branch - 11277CA  
Louisiana Dept. of Environmental Quality (NELAC/LELAP) 02006

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9/14/2011 18:31:01



### REPORT OF LABORATORY ANALYSIS

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## Sample Cross Reference

Pace Analytical Services, Inc.  
1000 Riverbend Blvd. Suite F  
St. Rose, LA 70087  
(504) 469-0333

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**Project:** 20127658

**Client:** PASI Indianapolis

**Project ID:** 5052117/MICAH GROUP

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Client Sample ID	Lab ID	Matrix	Collection Date/Time	Received Date/Time
UX08P1/5052117001	20914675	Soil	26-Aug-11 10:23	31-Aug-11 10:20
UX08P2/5052117002	20914676	Soil	26-Aug-11 15:40	31-Aug-11 10:20



## Project Narrative

Pace Analytical Services, Inc.  
1000 Riverbend Blvd. Suite F  
St. Rose, LA 70087  
(504) 469-0333

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**Project:** 20127658

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**Sample Receipt Condition:**

All samples were received in accordance with EPA protocol.

**Holding Times:**

All holding times were met.

**Blanks:**

All blank results were below reporting limits.

**Laboratory Control Samples:**

All LCS recoveries were within QC limits.

**Matrix Spikes and Duplicates:**

MS or MSD recoveries outside of QC limits are qualified in the Report of Quality Control section.

**Surrogates:**

All surrogate recoveries were within QC limits.





## QC Cross Reference

Pace Analytical Services, Inc.  
1000 Riverbend Blvd. Suite F  
St. Rose, LA 70087  
(504) 469-0333

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**Project:** 20127658

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Analytical Method	Batch	Sample used for QC
EPA 8081	168100	Project sample UX08P1/5052117001
EPA 8151	168101	Project sample UX08P1/5052117001

---

Narrative1 9/14/2011 18:31:32

For the sample used as the original for the DUP or MS/MSD for the batch:

Project sample means a sample from this project was used.

Client sample means a sample from the same client but in a different project was used.

Batch sample means a sample from a different client was used.



## Sample Results

Pace Analytical Services, Inc.  
1000 Riverbend Blvd. Suite F  
St. Rose, LA 70087  
(504) 469-0333

Client: PASI Indianapolis

Client ID: UX08P1/5052117001

Project: 20127658

Project ID: 5052117/MICAH GROUP

Site: None

Lab ID: 20914675 (TCLP)

Matrix: Soil

% Moisture: 0 Not Corrected

Description: None

Prep Level: TCLP

Batch: 168100

Method: EPA 8081 (TCLP)  
8081 Pests TCLP

Collected: 26-Aug-11

Received: 31-Aug-11

Prepared: 07-Sep-11

Units: mg/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
58-89-9	gamma-BHC (Lindane)	1	ND		0.000500	0.400	12-Sep-11 17:18 TWB
57-74-9	Chlordane	1	ND		0.00500	0.0300	12-Sep-11 17:18 TWB
72-20-8	Endrin	1	ND		0.00100	0.0200	12-Sep-11 17:18 TWB
76-44-8	Heptachlor	1	ND		0.000500	0.00800	12-Sep-11 17:18 TWB
1024-57-3	Heptachlor epoxide	1	ND		0.000500	0.00800	12-Sep-11 17:18 TWB
72-43-5	Methoxychlor	1	ND		0.00500	10.0	12-Sep-11 17:18 TWB
8001-35-2	Toxaphene	1	ND		0.0200	0.500	12-Sep-11 17:18 TWB

7 compound(s) reported

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Protocol 9/14/2011 18:31:33  
Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



## Sample Results

Pace Analytical Services, Inc.  
1000 Riverbend Blvd. Suite F  
St. Rose, LA 70087  
(504) 469-0333

Client: PASI Indianapolis

Client ID: UX08P1/5052117001

Project: 20127658

Project ID: 5052117/MICAH GROUP

Site: None

Lab ID: 20914675 (TCLP)

Matrix: Soil

% Moisture: 0 Not Corrected

Description: None

Prep Level: TCLP

Batch: 168101

Method: EPA 8151 (TCLP)  
8151 Herbs TCLP

Collected: 26-Aug-11

Received: 31-Aug-11

Prepared: 07-Sep-11

Units: mg/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
94-75-7	2,4-D	1	ND		0.0200	10.0	09-Sep-11 13:05 SPP1
93-72-1	2,4,5-TP (Silvex)	1	ND		0.0200	1.00	09-Sep-11 13:05 SPP1

2 compound(s) reported

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Protocol 9/14/2011 18:31:33  
Limits are corrected for sample size, dilution and moisture content if applicable.  
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.  
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



## Sample Results

Pace Analytical Services, Inc.  
1000 Riverbend Blvd. Suite F  
St. Rose, LA 70087  
(504) 469-0333

Client: PASI Indianapolis

Client ID: UX08P2/5052117002

Project: 20127658

Project ID: 5052117/MICAH GROUP

Site: None

Lab ID: 20914676 (TCLP)

Matrix: Soil

% Moisture: 0 Not Corrected

Description: None

Prep Level: TCLP

Batch: 168100

Method: EPA 8081 (TCLP)  
8081 Pests TCLP

Collected: 26-Aug-11

Received: 31-Aug-11

Prepared: 07-Sep-11

Units: mg/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
58-89-9	gamma-BHC (Lindane)	1	ND		0.000500	0.400	12-Sep-11 18:12 TWB
57-74-9	Chlordane	1	ND		0.00500	0.0300	12-Sep-11 18:12 TWB
72-20-8	Endrin	1	ND		0.00100	0.0200	12-Sep-11 18:12 TWB
76-44-8	Heptachlor	1	ND		0.000500	0.00800	12-Sep-11 18:12 TWB
1024-57-3	Heptachlor epoxide	1	ND		0.000500	0.00800	12-Sep-11 18:12 TWB
72-43-5	Methoxychlor	1	ND		0.00500	10.0	12-Sep-11 18:12 TWB
8001-35-2	Toxaphene	1	ND		0.0200	0.500	12-Sep-11 18:12 TWB

7 compound(s) reported

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Protocol 9/14/2011 18:31:33  
Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.





## Sample Results

Pace Analytical Services, Inc.  
1000 Riverbend Blvd. Suite F  
St. Rose, LA 70087  
(504) 469-0333

Client: PASI Indianapolis

Client ID: UX08P2/5052117002

Project: 20127658

Project ID: 5052117/MICAH GROUP

Site: None

Lab ID: 20914676 (TCLP)

Matrix: Soil

% Moisture: 0 Not Corrected

Description: None

Prep Level: TCLP

Batch: 168101

Method: EPA 8151 (TCLP)

Collected: 26-Aug-11

Received: 31-Aug-11

8151 Herbs TCLP

Prepared: 07-Sep-11

Units: mg/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
94-75-7	2,4-D	1	ND		0.0200	10.0	09-Sep-11 14:14 SPP1
93-72-1	2,4,5-TP (Silvex)	1	ND		0.0200	1.00	09-Sep-11 14:14 SPP1

2 compound(s) reported

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Protocol 9/14/2011 18:31:33  
Limits are corrected for sample size, dilution and moisture content if applicable.  
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.  
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



## Surrogate Recovery

Pace Analytical Services, Inc.  
1000 Riverbend Blvd. Suite F  
St. Rose, LA 70087  
(504) 469-0333

Batch: 168100

Project: 20127658

Method: TCLP GC Semivolatile Organics

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
20916197	168100 BLANK 1		77	74	59	39				
20916198	168100 LCS 1		67	65	41	48				
20914675	UX08P1/5052117001		82	72	57	65				
20916199	UX08P1/5052117001 MS 1		85	82	50	61				
20916200	UX08P1/5052117001 MSD 1		82	78	50	55				
20914676	UX08P2/5052117002		83	80	36	44				
QC limits:			10-137	10-137	18-119	18-119				
Sur 1: Decachlorobiphenyl (Conf)(S)										
Sur 2: Decachlorobiphenyl (S)										
Sur 3: Tetrachloro-m-xylene (Conf)(S)										
Sur 4: Tetrachloro-m-xylene (S)										

\* denotes surrogate recovery outside of QC limits.

D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.



## Surrogate Recovery

Pace Analytical Services, Inc.  
1000 Riverbend Blvd. Suite F  
St. Rose, LA 70087  
(504) 469-0333

Batch: 168101

Project: 20127658

Method: TCLP GC Semivolatile Organics

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
20916201	168101 BLANK 1		71	70						
20916202	168101 LCS 1		78	77						
20914675	UX08P1/5052117001		72	70						
20916203	UX08P1/5052117001 MS 1		76	75						
20916204	UX08P1/5052117001 MSD 1		94	94						
20914676	UX08P2/5052117002		69	68						
QC limits:			10-166	10-166						
Sur 1: 2,4-DCPA (Conf)(S)										
Sur 2: 2,4-DCPA (S)										

\* denotes surrogate recovery outside of QC limits.

D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.



## Quality Control

Pace Analytical Services, Inc.  
1000 Riverbend Blvd. Suite F  
St. Rose, LA 70087  
(504) 469-0333

**Batch:** 168100  
**Method:** TCLP GC Semivolatile Organics

**Project:** 20127658    **LCS:** 20916198    12-Sep-11 14:34  
**MS:** 20916199    12-Sep-11 17:36  
**Units:** mg/L    **MSD:** 20916200    12-Sep-11 17:54  
**Original for MS:** Client Sample    20914675

Parameter Name	LCS	LCS	LCS	MS	Sample	MS	MSD	MS	MSD	QC Limits		Max	Qu
	Spike	Found	%Rec	Spike	Found	Found	Found	%Rec	%Rec	RPD	LCS	MS/MSD	RPD
gamma-BHC (Lindane)	0.00500	0.00401	80	0.00500		0.00453	0.00434	91	87	4	26-134	18-154	20
Endrin	0.00500	0.00401	80	0.00500		0.00523	0.00494	105	99	6	27-160	37-155	20
Heptachlor	0.00500	0.00214	43	0.00500		0.00253	0.00268	51	54	5	10-116	10-138	21
Heptachlor epoxide	0.00500	0.00326	65	0.00500		0.00423	0.00406	85	81	4	27-123	21-139	20
Methoxychlor	0.00500	0.00408	82	0.00500		0.00535	0.00498	107	100	7	25-156	21-169	20
5 compound(s) reported													





## Quality Control

Pace Analytical Services, Inc.  
1000 Riverbend Blvd. Suite F  
St. Rose, LA 70087  
(504) 469-0333

**Batch:** 168101  
**Method:** TCLP GC Semivolatile Organics

**Project:** 20127658    **LCS:** 20916202    09-Sep-11 12:42  
**MS:** 20916203    09-Sep-11 13:28  
**Units:** mg/L    **MSD:** 20916204    09-Sep-11 13:51  
**Original for MS:** Client Sample    20914675

Parameter Name	LCS	LCS	LCS	MS	Sample	MS	MSD	MS	MSD	QC Limits		Max	Qu
	Spike	Found	%Rec	Spike	Found	Found	Found	%Rec	%Rec	RPD	LCS	MS/MSD	RPD
2,4-D	0.200	0.161	81	0.200		0.165	0.221	83	111	29 *	10-159	10-167	27
2,4,5-TP (Silvex)	0.0200	0.0160	80	0.0200		0.0161	0.0211	81	105	27 *	30-165	31-168	20
2 compound(s) reported													



## Blank Results

Pace Analytical Services, Inc.  
1000 Riverbend Blvd. Suite F  
St. Rose, LA 70087  
(504) 469-0333

**Blank ID:** 168100 BLANK 1

**Project:** 20127658

**Lab ID:** 20916197

**Prep Level:** TCLP

**Batch:** 168100

**Method:** TCLP GC Semivolatile Organics

**Prepared:** 07-Sep-11

						Units: <u>mg/L</u>		
CAS Numb	Analyte	Dilution	Result	Qu	Reporting Limit		Analysis	
58-89-9	gamma-BHC (Lindane)	1	ND		0.000500		12-Sep-11 14:15	TWB
57-74-9	Chlordane	1	ND		0.00500		12-Sep-11 14:15	TWB
72-20-8	Endrin	1	ND		0.00100		12-Sep-11 14:15	TWB
76-44-8	Heptachlor	1	ND		0.000500		12-Sep-11 14:15	TWB
1024-57-3	Heptachlor epoxide	1	ND		0.000500		12-Sep-11 14:15	TWB
72-43-5	Methoxychlor	1	ND		0.00500		12-Sep-11 14:15	TWB
8001-35-2	Toxaphene	1	ND		0.0200		12-Sep-11 14:15	TWB

7 compound(s) reported

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Protocol Blank 9/14/2011 18:31:37  
Limits are corrected for sample size, dilution and moisture content if applicable.  
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.  
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



## Blank Results

Pace Analytical Services, Inc.  
1000 Riverbend Blvd. Suite F  
St. Rose, LA 70087  
(504) 469-0333

**Blank ID:** 168101 BLANK 1

**Project:** 20127658

**Lab ID:** 20916201

**Prep Level:** TCLP

**Batch:** 168101

**Method:** TCLP GC Semivolatile Organics

**Prepared:** 07-Sep-11

						Units: <u>mg/L</u>		
CAS Numb	Analyte	Dilution	Result	Qu	Reporting Limit		Analysis	
94-75-7	2,4-D	1	ND		0.0200		09-Sep-11 12:19	SPP1
93-72-1	2,4,5-TP (Silvex)	1	ND		0.0200		09-Sep-11 12:19	SPP1
2 compound(s) reported								

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Protocol Blank 9/14/2011 18:31:37  
Limits are corrected for sample size, dilution and moisture content if applicable.  
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.  
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



## Definitions/Qualifiers

Pace Analytical Services, Inc.  
1000 Riverbend Blvd. Suite F  
St. Rose, LA 70087  
(504) 469-0333

---

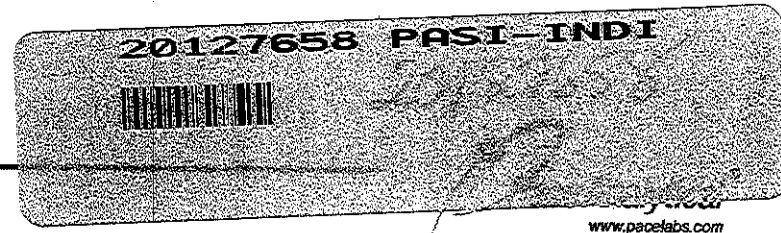
**Project:** 20127658

---

Value	Description
J	This estimated value for the analyte is below the adjusted reporting limit but above the instrument reporting limit.
U	The analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
B	This analyte was detected in the method blank.
E	The sample concentration is above the linear calibrated range of the analysis.
LCS	Laboratory Control Sample.
MS(D)	Matrix Spike (Duplicate).
DUP	Sample Duplicate.
RPD	Relative Percent Difference.



# Chains of Custody



Chain of Custody

Workorder: 5052117

Workorder Name: NSA Crane UXO 8 Demo.

Owner Received Date: 8/30/2011

Results Requested By: 9/14/2011

Report To:		Subcontract To:				Requested Analysis											
Mick Mayse Pace Analytical Services, Inc. 7726 Moller Road Indianapolis, IN 46268 Phone (317)875-5894 Fax (317)872-6189		Pace Analytical New Orleans 1000 Riverbend Blvd Suite F St. Rose, LA 70087 Phone (504)469-0333															
						LAB USE ONLY											
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Unreserved											
1	UXO8P1	PS	8/26/2011 10:23	5052117001	Solid	1											
2	UXO8P2	PS	8/26/2011 15:40	5052117002	Solid	1											
3																	
4																	
5																	
						Comments											
Transfers	Released By		Date/Time	Received By		Date/Time											
1	K. Anderson		8-30-11 1600														
2	Fed EX		8-31-11 1020	J. Miller		8-31-11	1020										
3																	
Cooler Temperature on Receipt		2.1 °C		Custody Seal		Y or N	Received on Ice		Y or N		Samples Intact		Y or N				

MB



1000 Riverbend Blvd., Suite F  
St. Rose, LA 70087

Sample Condition

20127658 PAST-INDI



Courier: ☐ Pace Courier ☐ Hackbarth ☒ Fed X ☐ UPS ☐ DHL ☐ USPS ☐ Customer ☐ Other

Custody Seal on Cooler/Box Present: [see COC]

Custody Seals Intact: ☒ Yes ☐ No

Thermometer Used: ☒ Therm Fisher IR 1  
☐ Therm Fisher IR 2  
☐ Therm Fisher IR 4

Type of Ice: ☒ Wet ☐ Blue ☐ None

Samples on Ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and Initials of person examining contents: IN 8/31/11

Temp must be measured from Temperature blank when present

Comments:

Temperature Blank Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1	
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2	
Chain of Custody Complete:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3	
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6	
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8	
Filtered vol. Rec. for Diss. tests	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	9	
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10	
All containers received within manufacture's precautionary and/or expiration dates.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11	
All containers needing preservation have been checked (except VOA, coliform, & O&G).	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12	
All containers preservation checked found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13	If No, was preservative added? <input type="checkbox"/> Yes <input type="checkbox"/> No If added record lot no.: HNO3 _____ H2SO4 _____
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	14	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14	
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16	
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	17	
Pace Trip Blank Lot # (if purchased):	<u>N/A</u>	18	

Client Notification/ Resolution:

Person Contacted: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_



W/T / Fed Ev 8766 9616 3797



# Sample Condition Upon Receipt

Pace Analytical

Client Name: M. Cah Group

Project # 5052117

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 8766 9616 3393

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Date/Time 5035A kits placed in freezer

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Thermometer Used 1 2 3 4 6 A B C D E

Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 1.4°C  
(Corrected, if applicable)

Ice Visible in Sample Containers: ☐ yes ☒ no

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: 8-30-11 DD

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	5.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sample Labels match COC: -Includes date/time/ID/Analysis	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
All containers needing acid/base pres. have been checked? exceptions: VOA, coliform, TOC, O&G	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9. (Circle) HNO3 H2SO4 NaOH HCl
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Project Manager Review <u>MM</u>		
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review:

Mr. Mayse

Date: 8/30/11

# Sample Container Count



CLIENT: Micah

COC PAGE 1 of 1

COC ID# \_\_\_\_\_

Project # 5052117

Sample Line

Item DG9H AG1U WGFU R 4/6 BP2N BP2U BP2S BP3N BP3U BP3S AG3S AG1H

Comments

1			4													
2			↓													
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																

## Container Codes

DG9H	40mL HCL amber voa vial	AF	Air Filter	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber glass	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved <b>amber</b> vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I	Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber gla	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	BP3A	250mL NaOH, Asc Acid plastic	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved <b>clear</b> vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFU	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

**ATTACHMENT D**

**TRANSPORTATION WASTE DISPOSAL DOCUMENTS**



**NON-HAZARDOUS  
WASTE MANIFEST**

1. Generator ID Number

2. Page 1 of 1

3. Emergency Response Phone

4. Waste Tracking Number

5. Generator's Name and Mailing Address

Tom Brent

NSC GRANE ENVIRONMENTAL  
13-3200 HWY 1300  
GRUPE IN

Generator's Site Address (if different than mailing address)

UX08

Generator's Phone:

6. Transporter 1 Company Name

U.S. EPA ID Number

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

U.S. EPA ID Number

Safety-Clean

Facility's Phone:

Indianapolis, IN

9. Waste Shipping Name and Description

10. Containers

No.

Type

11. Total  
Quantity

12. Unit  
Wt./Vol.

1.

Test BINSIN RESIDUE

002

D

110

G

2.

3.

4.

13. Special Handling Instructions and Additional Information

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Officer's Printed/Typed Name

Signature

Month Day Year

James (unclear) / Tedro Tech

[Signature]

12/26/11

15. International Shipments

☐ Import to U.S.

☐ Export from U.S.

Port of entry/exit:

Transporter Signature (for exports only):

Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Signature

Month Day Year

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

☐ Quantity

☐ Type

☐ Residue

☐ Partial Rejection

☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in item 17a

Printed/Typed Name

Signature

Month Day Year

Sam W. [unclear]

[Signature]

05/11



10/13/11 14:00:00 Company 694  
DETAIL

Allied Waste Industries, Inc. BITDS215 BIGDS215  
DAILY DISPOSAL REPORT

Page : 1

Ticket Date Range 8/30/11 to 8/30/11  
Ticket Number Range A to 9999999999  
Route Range 0 to 9999  
Route Format

Disposal  
Account 42676 MICAH GROUP  
Contract  
SvcA Revenue Dist.  
Industrial Dist Source Route Hdr

Ticket #	Route	Date	Seq	Truck	Acct Cpty	Site Ld%	Gp Name	Volume	Wgt/Yd	Weight or Quantity	UoM	C/R	Customer Chg/Cred
5507A	2201	08/30	1	1	003426	42676	00001 01	MICAH GROUP		1.00000	LD	C	
-----													
TOTALS	20	Industrial				-TH	1	30.00	0.033	1.00000		C	
-----													
TOTALS	GD 01	GOOD EARTH COMPOST					1	30.00	0.033	1.00000		C	
-----													
TOTALS	GD	GOOD EARTH					1	30.00	0.033	1.00000		C	
-----													
GRAND TOTALS							1	30.00	0.033	1.00000	LD	C	

Micah Group 30.00 yd Roll off delivered to Good Earth Compost for recycling.

**NON-HAZARDOUS  
WASTE MANIFEST**

1. Generator ID Number

2. Page 1 of 1

3. Emergency Response Phone

4. Waste Tracking Number

5. Generator's Name and Mailing Address

Tan Brest  
NSA Center Environmental  
B-3260 Hwy 300  
Carmel, IN

Generator's Site Address (if different than mailing address)

UXO 8  
Pyrotechnics Area

Generator's Phone:

6. Transporter 1 Company Name

U.S. EPA ID Number

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

Good Earth Recycling  
Bloomington, IN

U.S. EPA ID Number

Facility's Phone:

9. Waste Shipping Name and Description

10. Containers

No.

Type

11. Total  
Quantity

12. Unit  
WL/Vol.

1.

Clean Waste Concrete

001 R.O.

2.

3.

4.

13. Special Handling Instructions and Additional Information

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Officer's Printed/Typed Name

Signature

Month Day Year

James Goerdt/Tan Brest

18/12/11

15. International Shipments

☐ Import to U.S.

☐ Export from U.S.

Port of entry/exit:

Transporter Signature (for exports only):

Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Signature

Month Day Year

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

☐ Quantity

☐ Type

☐ Residue

☐ Partial Rejection

☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in item 17a

Printed/Typed Name

Signature

Month Day Year